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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,107	06/25/2003	Gregory O. Jones	12651US02 (20-0140C)	4194
23400	7590	09/07/2004	EXAMINER	
POSZ & BETHARDS, PLC 11250 ROGER BACON DRIVE SUITE 10 RESTON, VA 20190			PEREZ GUTIERREZ, RAFAEL	
			ART UNIT	PAPER NUMBER
			2686	

DATE MAILED: 09/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/606,107	Jones et al.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Rafael Perez-Gutierrez	2686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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## DETAILED ACTION

### *Priority*

1. Applicant has complied with the conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120.

### *Specification*

2. The disclosure is objected to because of the following informality: On **page 1 first paragraph**, the serial numbers of the related applications are missing. Appropriate correction is required.

### *Preliminary Amendment*

3. The present Office Action is based upon the original patent application filed on June 25, 2003 as modified by the preliminary amendment also filed on June 25, 2003. **Claims 1-20** are now pending in the present application.

### *Claim Objections*

4. **Claims 1, 6, and 14** are objected to because of the following informalities:
  - a) On **lines 8 and 9 of claim 1**, replace "a" with --an-- before "avionics";

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- b) On **line 8 of claim 6**, delete “and” after “transceivers;”;
- c) On **line 10 of claim 6**, insert --and-- after “functions,”;
- d) On **line 2 of claim 14**, delete “is” after “function”; and
- e) On **line 3 of claim 14**, replace “asserts” with --assets-- after “resources”.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 11-15** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

**Claim 11** recites the limitation “said plurality of multi-band transceivers” in **line 10**. There is insufficient antecedent basis for this limitation in the claim. Previous recitation of a plurality of multi-band transceivers was not found in the claim. For purpose of examination, said limitation is read as “said plurality of transceivers”.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

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basis for the rejections under this section made in this Office Action:

A person shall be entitled to a patent unless -- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1-20** are rejected under 35 U.S.C. 102(b) as being anticipated by **Wolfe et al.**

***("Integrated CNI Avionics Using F-22 Modular Products")***.

Consider **claims 1, 3, 6, 9, and 16-18**, Wolfe et al. clearly show and disclose a method for implementing a multifunction electronic radio system and a multifunction electronic radio system comprising:

a plurality of antenna interface (figure 1); and

a plurality of self-contained programmable electronic radio system multifunction slices (slice is read in accordance with the language in the specification to simply mean a grouping of radio resources) (figures 1, 2, and 7 and page 270 right hand column second full paragraph), each of said slices comprising:

an antenna interface (figure 1);

a plurality of bi-directional transceivers (i.e., Xmtrs and Rcvrs) coupled to said antenna interface (figure 1 and page 265 right hand column);

a communication, navigation, interrogation (CNI) signal processor (programmable/master processor) coupled to said plurality of bi-directional transceivers (i.e., Xmtrs and Rcvrs) and operable to support at least two independent radio function threads through said plurality of bi-directional transceivers (i.e., Xmtrs and Rcvrs) (figure 1, page 264 right hand column second full paragraph, and page 266 right hand column last paragraph - page 267 left hand column first paragraph); and

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a processing and aircraft (avionics) interface (figure 1) including an avionics network input for receiving first data to be transmitted through the transceivers (i.e., Xmtrs and Rcvrs) and a avionics network output for second data received from the transceivers (i.e., Xmtrs and Rcvrs) (pages 266, 269, and 270),

wherein the plurality of multifunction slices implements a predetermined set of radio functions (figures 3 and 7 and page 270 right hand column second full paragraph), and

wherein at least one of said transceivers (i.e., Xmtrs and Rcvrs) is interconnected to a plurality of said plurality of antenna interfaces (figures 1 and 3 and pages 266-269).

Consider **claim 2**, and **as applied to claim 1 above**, Wolfe et al. further disclose that said CNI signal processor is operable to perform a digital signal processing function selected from the group consisting of modulation, demodulation, encoding/decoding, detection, encryption and decryption (figure 1 and pages 264, 266, and 267).

Consider **claim 4**, and **as applied to claim 1 above**, Wolfe et al. also disclose that said at least two radio function threads support radio functions selected from the group consisting of voice radio communication, data network communication, electronic navigation aids, radio beacon detection, global and local grid positioning system detection, and friend-or-foe identification challenging and responding (figures 3 and 4 and pages 266-270).

Consider **claims 5, 7, 8, and 11-15**, and **as applied to claims 1, 2, and 6 above**, Wolfe et al. further show a plurality of antennas, each of said antennas being coupled to an antenna preconditioner, wherein said antenna interface couples externally the multifunction slice to a plurality of antenna preconditioning units (figure 1).

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Consider **claim 10**, and **as applied to claim 6 above**, Wolfe et al. also show and disclose that the at least two of said slices are interconnected through a maintenance (radio network) bus electrically isolated from the transceivers (i.e., Xmtrs and Rcvrs) (figure 1, page 265, and page 267 left hand column - page 269 left hand column).

Consider **claims 19 and 20**, and **as applied to claim 16 above**, Wolfe et al. further disclose that said slices may be reprogrammed in real time to accommodate a plurality of radio functions using minimal allocation of said slices (pages 265-269).

### ***Response to Arguments***

7. Applicant's arguments with respect to **claims 1-15** have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

Harris discloses modular avionics and its impacts on communication, navigation, and identification (CNI);

Bryson discloses an integrated CNI terminal software architecture.



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9. Any response to this Office Action should be **faxed to (703) 872-9306 or mailed to:**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand-delivered responses** should be brought to

220 S. 20<sup>th</sup> St.  
Crystal Plaza Two, Lobby, Room 1B03  
Arlington, VA 22202

10. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Rafael Perez-Gutierrez whose telephone number is (703) 308-8996. The Examiner can normally be reached on Monday-Thursday from 6:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Marsha D. Banks-Harold can be reached on (703) 305-4379. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding

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should be directed to the receptionist whose telephone number is (703) 305-4700 or call customer service at (703) 306-0377.

  
Rafael Perez-Gutierrez  
R.P.G./rpg **RAFAEL PEREZ-GUTIERREZ**  
**PATENT EXAMINER**

September 6, 2004